

AMENDMENTS

Information Disclosure Statement:

In response to the Examiner's note, copies of listed citations have been ordered, and a revised Information Disclosure Statement will be filed in compliance with 37 CFR §1.98 within 5-10 business days.

Amendments to the Drawings:

Please substitute the attached new formal FIGURES 1-5 for the previously filed FIGURES 1-5, filed August 28, 2003. Please note that FIGURE 1 has an added reference sign for Element 16, the reflected beam 16 called out in the Specification, at Page 3, Line 14, as requested by the Examiner.


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BOEI-1-1194ROA

BLACK LOWE & GRAHAM ^{PLLC}


701 Fifth Avenue, Suite 4800
Seattle, Washington 98104
206.381.3300 • F: 206.381.3301

REMARKS

Introduction:

Claims 1 through 58 were pending in the patent application when an Office Action mailed May 18, 2005, objected to Claim 27 and rejected Claims 1-57. The Office Action requested correction of the Figures and submittal of a proper Information Disclosure Statement. The Office Action noted that Claim 58 would be allowable if amended to include the limitations of the base claim and all intervening claims. The Examiner is thanked for the indication of allowable matter.

By way of this Amendment, and without introducing new matter, the Applicants have amended the Figures, and the Claims. Applicants respectfully request entry of the amendment and reconsideration and allowance of all claims pending in this patent application.

Information Disclosure Statement:

A properly formatted Information Disclosure Statement is submitted with this response.

Substitution/Correction to the Figures:

Without adding new matter, Applicants substitute new formal FIGURES 1-5 for the previously filed FIGURES 1-5. Without adding new matter, as requested by the Examiner, FIGURE 1 has an added reference sign for Element 16, the reflected beam 16 called out in the Specification, at Page 3, Line 14. Applicants respectfully request entry of this amendment to the Figures.

Claim Objection:

Claim 27 was objected to as failing to further limit the subject matter of a previous claim. Claim 27 has been cancelled. Applicant respectfully requests entry of this amendment to the Claims.


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Rejection of Claim 1 under 35 U.S.C. § 102(e):

The Office Action rejected Claim 1 as being anticipated by Nagarajan. The Office Action stated Nagarajan discloses a non-destructive method for determining a degree of polish. Applicants respectfully traverse.

With a full reservation of all rights, Claim 1 is amended to state that specular reflectance is *measured*. Nagarajan explicitly calculates specular reflectance. *See* Nagarajan, paragraphs [0035], [0039] and [0079]. Further Nagarajan, including at paragraph [0096], fully appears to contain no reference to polish, nor to degree of polish, nor of correlating a degree of polish to specular reflectance. As the elements of Claim 1 are not disclosed by Nagarajan, Claim 1 is not anticipated by Nagarajan.

Applicants therefore request entry of the Amendment and reconsideration and allowance of Claim 1.

Rejection of Claims 2-57 under 35 U.S.C. § 103(a):

The Office Action rejected Claims 2-4, 16, 19-20, 29, 31-33, and 38, as being obvious under Nagarajan in view of Goetz. The Office Action rejected Claim 5, as being obvious under Nagarajan in view of Goetz and in further view of Myaji. The Office Action rejected Claims 6-15, 17-18, 21-26, 28, 30, 34-37, and 39 as being obvious under Nagarajan in view of Goetz and in further view of Allen. The Office Action rejected Claims 40 and 43-46, as being obvious under Goetz and in view of Allen. The Office Action rejected Claims 41-42 and 47, as being obvious under Goetz in view of Allen and in further view of Nagarajan. The Office Action rejected Claims 48-50 and 56, as being obvious under Goetz in view of Nagarajan. The Office Action rejected Claims 51, 54-55, and 57, as being obvious under Goetz in view of Allen in view of Nagarajan, and in further view of Allen. The Office Action rejected Claims 52-53, as being obvious under Goetz in view of Allen and in further view of Stone. Applicants respectfully traverse.

The Office Action rejected Claims 2-4, 16, 19-20, 29, 31-33, and 38, as being obvious under Nagarajan in view of Goetz. As discussed with reference to the § 102 rejection above, Claim 1, from which Claims 2-4 and 16 depend, has been amended to reference that the specular reflectance is measured, not calculated, elements not taught by Nagarajan or Goetz. By reason of

their dependence from an allowable base claim and for other reasons, Claims 2-4 and 16 are not obvious under Nagarajan in view of Goetz.

Further, here, as well as for all references to Nagarajan below, Nagarajan is a calculation method. Nothing in Nagarajan teaches or suggests combination of Nagarajan with measuring methods relating to polish. Goetz measures brightness ratio values between two wavelengths, not polish, and contains nothing teaching or suggesting combination with a calculation method.

As discussed with reference to the § 102 rejection above Nagarajan teaches no reference to polish, degree of polish, nor of correlating a degree of polish to specular reflectance. Goetz teaches no reference to polish, to degree of polish, nor of correlating a degree of polish to specular reflectance. Independent Claims 19 and 31 reference correlating absorbance to a degree of polish or determining a degree of polish, elements not taught by Nagarajan or Goetz. Independent Claims 19 and 31 are therefore not obvious under Nagarajan in view of Goetz, as every element of the referenced claims are not included in Nagarajan and Goetz. By reason of their dependence from allowable base Claims 19 and 31 and for other reasons, Claims 20, 29, 32-33 and 38 are not obvious under Nagarajan in view of Goetz.

The Office Action rejected Claim 5, as being obvious under Nagarajan in view of Goetz and in further view of Myaji. By reason of its dependence from allowable base Claim 1, as referenced above, and for other reasons, Claim 5 is not obvious under Nagarajan in view of Goetz in further view of Myaji, in further view of Myaji.

The Office Action rejected Claims 6-15, 17-18, 21-26, 28, 30, 34-37, and 39 as being obvious under Nagarajan in view of Goetz and in further view of Allen. Base Claims 1, 19, and 31 are allowable as referenced above. By reason of their dependence from allowable base Claims 1, 19 and 31 and for other reasons, Claims 6-15, 17-18, 21-26, 28, 30, 34-37, and 39 are not obvious under Nagarajan in view of Goetz in further view of Allen.

The Office Action rejected Claims 40 and 43-46, as being obvious under Goetz and in view of Allen. The Office Action rejected Claims 41-42 and 47, as being obvious under Goetz in view of Allen and in further view of Nagarajan. Claim 40 has been amended to include the limitation of correlating the first infrared absorbance to a degree of polish of the aluminum surface. Goetz teaches no reference to polish, to degree of polish, nor of correlating a degree of polish to absorbance. Allen teaches no reference to polish, to degree of polish, nor of correlating

a degree of polish to absorbance. Applicants respectfully traverse any suggestion of official notice of correlating absorbance as claimed to polish, in view of Goetz or Allen. Applicants therefore request entry of the Amendment and reconsideration and allowance of Claim 40. By reason of their dependence from the allowable base claim 40, and for other reasons, Claims 41-47 are not obvious under Goetz in view of Allen, nor in further view of Nagarajan.

The Office Action rejected Claims 48-50 and 56, as being obvious under Goetz in view of Nagarajan. The Office Action rejected Claims 51, 54-55, and 57, as being obvious under Goetz in view of Nagarajan, and in further view of Allen. The Office Action rejected Claims 52-53, as being obvious under Goetz in view of Allen and in further view of Stone.

Goetz measures brightness ratio values between two wavelengths on the same substrate. With reference to Claim 48, under Goetz, no comparison is made between two substrates. The calibration reference of white ceramic wool is not compared with the results from other substrates, it is used to equalize measurements from the one substrate. Further, Goetz does not determine infrared absorbance of any surface. Nagarajan is a calculation method and does not disclose comparing a first infrared absorbance to a second infrared absorbance. Neither Nagarajan nor Goetz teach or suggest any combination of calculated absorbance or reflectance values with a measuring method or comparing absorbance relating to polish. Applicants therefore request reconsideration and allowance of Claim 48.

By reason of their dependence from the allowable base Claim 48, and for other reasons, Claims 48-57 are not obvious under Goetz in view of Nagarajan, nor in view of Allen or Stone.

Applicants therefore request reconsideration and allowance of Claims 2-57.

Allowable Subject Matter:

Applicants appreciate the Examiner's determination of allowable subject matter in Claim 58.

CONCLUSION

Applicant respectfully submits that all claims in this patent application are in condition for allowance. Objections to the drawings have been overcome without introducing new matter. All of the claims are in condition for allowance.


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Applicants respectfully request entry of the amendment, and reconsideration and allowance of all claims in this patent application.

If the Examiner has questions, the Examiner is invited to contact the Applicant's attorney listed below.

Respectfully submitted,

BLACK LOWE & GRAHAM^{PLLC}



Mark S. Beaufait

Registration No.: 48,529

Direct Dial: 206.464.1380

MAIL CERTIFICATE

I hereby certify that this communication is being deposited with the United States Postal Service via first class mail under 37 C.F.R. § 1.08 on the date indicated below addressed to: MAIL STOP AMENDMENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

August 18, 2005
Date of Deposit

Wendy Saxby
Wendy Saxby


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